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TITLE: Predicting Military-Induced Stress Responses in Servicewomen (Air Force)

PRINCIPAL INVESTIGATOR: Dr. Edna Fiedler

CONTRACTING ORGANIZATION: Wilford Hall Medical Center
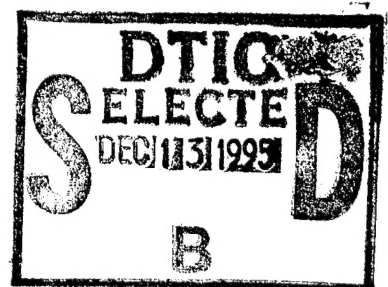Lackland AFB, TX 78237-5300

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13. ABSTRACT (Maximum 200 words)

This study is to provide a description of medical, prior-to-service biographical data, and neuropsychological characteristics of women who enlist in the United States Air Force allowing comparison of women and men of different ethnic backgrounds who do or do not (a) excessively use medical resources, (b) successfully graduate. Subjects were about 1500 female and 800 male recruits entering USAF Basic Military Training (BMT) at Lackland AFB. Data collection included prior-to-service biographical data, scores on *MicroCog*, medical record data, and graduation/discharge data. Results are being analyzed using cross tabulations, MANOVAS, and regression analysis. Discussion will focus on gender and or ethnic comparisons, implications for recruit screening, and potential intervention strategies.

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Edna R Fiedler / 19 Sep 95

PI - Signature   **Date**

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INTRODUCTION

Little is known about the physiological and psychological characteristics of servicewomen. Even less is known about their responses to the stress of military training. Because all enlisted women must successfully complete both basic and advanced training as a prelude to their military career, this period is critical in determining the long-range composition of the female enlisted force.

Lackland AFB has the only USAF Basic Military Trainng (BMT), providing a unique opportunity to study large numbers of female recruits in a naturalistic and stressful military environment. We have just finished collecting demographic, prior-to-service biographic, cognitive, psychological and medical data on a group of enlisted servicewomen and men atttending BMT.

Data collected during the course of this study will provide a heretofore-unknown picture of the way women respond to military stressors, and how these responses differ across gender and ethnic lines. Our subjects will encounter two forms of stress: the "shock" of their introduction to the military and its demands, and the stressors associated with training. While research results will apply best in these settings, findings can be generalized to other stressful situations such as intercontinental air travel, submarine deployment, medical triage emergencies and combat environments. This data can be useful in making policy decisions regarding the suitability of women for various military roles.

Information will be gathered that better delineates the medical and psychological needs of servicewomen. This knowledge can assist in allocating resources so as to tailor available services to better fit the areas of greatest need.

Finally, the predictive algorithms developed will be useful for early recruit screening. By identifying at-risk individuals earlier, less costly evaluations can be performed, avoiding costs of later attrition .

Methods of approach included archival data collection, administration of a computerized neuropsychological test battery, and tracking of medical utilization, and graduation data.

BODY

Subjects consisted of 1500 female recruits entering USAF Basic Military Training (BMT) at Lackland AFB between Feb and May 1995 as well as 800 male recruits.m xData collected on each subject included:

      1. *History Opinion Inventory (HOI)*, already given as part of routine in-processing procedures. This self-report questionnaire assesses prior-to-service biographical data regarding: antisocial behavior; social withdrawal; emotional stability; emotional composure; family, academic and legal problems.

      2. *MicroCog*, which was completed as part of the research project, with BMT giving the researchers the needed 1 hour testing time from 0630-0730. A computer-administered and -scored test, *MicroCog* samples a variety of important neurocognitive functions. Its 18 subtests can be completed in about 45 minutes, generating nine Index Scores in addition to individual subtest scores. These indices include Attention/Mental Control, Memory, Reasoning/Calculation, Spatial Processing, Reaction Time, Information Processing Speed, Information Processing Accuracy, General Cognitive Functioning and General Cognitive Proficiency.

      3. *Medical Record Abstraction Form*. This instrument was used to collect pertinent data from each subject's medical record as s/he utilized clinic and hospital services (both inpatient and outpatient, including mental health visits.

      4. *Graduation/Discharge Information*. Data regarding whether or not each subject graduates from BMT has also been recorded, along with reasons for early separation.

CONCLUSIONS

No conclusions are yet drawn, as currently we are merging the databases for analyses.

REFERENCES

No additional references.